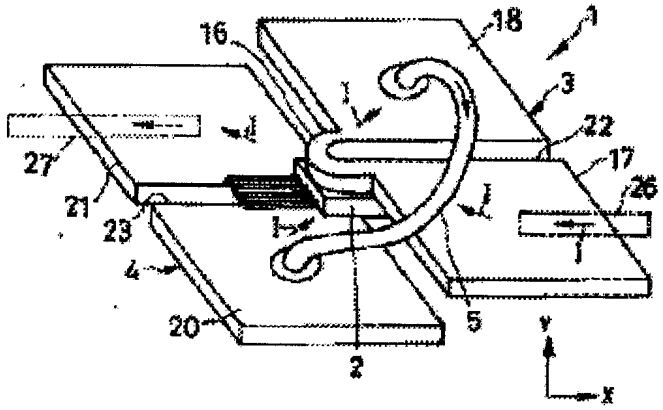
CURRENT DETECTOR EQUIPPED WITH HALL ELEMENT

Publication number: JP2002202327
Publication date: 2002-07-19
Inventor: GOTO HIROICHI; KATO TAKASHI; KUMAKURA HIROMICHI
Applicant: SANKEN ELECTRIC CO LTD
Classification:
- international: ***G01R33/07; G01R15/20; H01L43/04; H01L43/06;*** *H01L43/04; H01L43/06;* **G01R33/06; G01R15/14; H01L43/00; H01L43/06;** H01L43/00; H01L43/06; (IPC1-7): H01L43/04; H01L43/06; G01R15/20; G01R33/07
- European:
Application number: JP20010206176 20010706
Priority number(s): JP20010206176 20010706; JP20000322609 20001023

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Abstract of **JP2002202327**

PROBLEM TO BE SOLVED: To further enhance the sensitivity of a current detector using a Hall element. SOLUTION: A semiconductor device 2 including the Hall element 14 is arranged between first and second conductors 3 and 4 for forming a current path and U-shaped intermediate parts 16 and 19 are provided to the first and second conductors 3 and 4 for forming the current path. The Hall element 14 is arranged in the grooves 22 and 23 of the U-shaped intermediate parts 16 and 19 on a plan view. The first and second conductors 3 and 4 for forming the current path are connected in series by a mutual connection conductor 5 so as to make the directions of the magnetic field acting on the Hall element 14 from the first and second conductors 3 and 4 for forming the current path same.



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Family list
4 family members for: **JP2002202327**
Derived from 3 applications

Back to JP2002202

1 **Hall-effect current detector**
Inventor: GOTO HIROKAZU (JP); KATO TAKASHI (JP); (+1)
Applicant: SANKEN ELECTRIC CO LTD (JP)
EC: G01R15/20B
IPC: ***G01R15/20***; **G01R15/14**; (IPC1-7): G01R15/20
Publication info: EP1273921 A1 - 2003-01-08

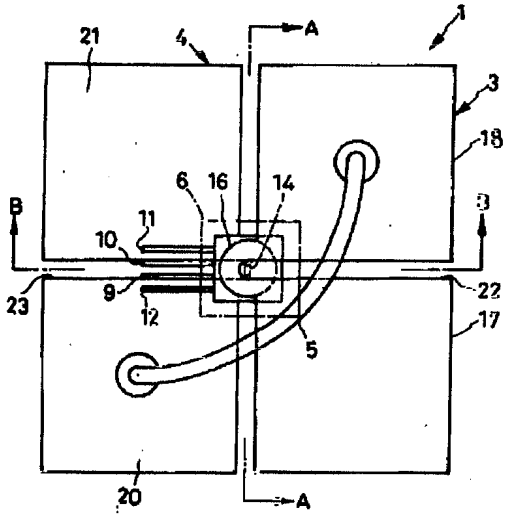
2 **CURRENT DETECTOR EQUIPPED WITH HALL ELEMENT**
Inventor: GOTO HIROICHI; KATO TAKASHI; (+1)
Applicant: SANKEN ELECTRIC CO LTD
EC:
IPC: ***G01R33/07; G01R15/20; H01L43/04*** (+13)
Publication info: JP2002202327 A - 2002-07-19

3 **Hall-effect current detector**
Inventor: GOTO HIROKAZU (JP); KATO TAKASHI (JP); (+1)
Applicant: SANKEN ELECTRIC CO LTD (US)
EC: G01R15/20B
IPC: ***G01R15/20***; **G01R15/14**; (IPC1-7): G01R31/00
Publication info: US6781358 B2 - 2004-08-24
US2003006751 A1 - 2003-01-09

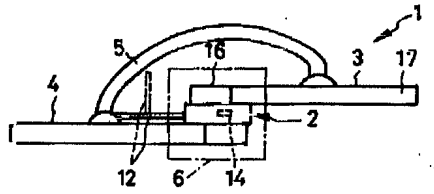
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図である。
【図１０】図８のＢ－Ｂ線の一部を示す断面図である。
【図１１】第２の実施形態の電流検出装置を示す平面図である。
【図１２】図１１の第２の実施形態の電流検出装置を相互接続導体を省いた状態で示す正面図である。
【図１３】図１１の電流検出装置の分解斜視図である。
【図１４】第３の実施形態の電流検出装置を示す平面図である。
【図１５】第３の実施形態の電流検出装置を図１４の相互接続導体を省いて示す正面図である。
【図１６】図１４の電流検出装置の分解斜視図である。
【図１７】第４の実施形態の第１及び第２の電流通路形成用導体を示す平面図である。
【図１８】第５の実施形態の電流検出装置を図３と同様な位置で切断して示す断面図である。
【図１９】第５の実施形態の電流検出装置を図４と同様な位置で切断して示す断面図である。
【符号の説明】
１　電流検出装置
２　半導体装置
３、４　第１及び第２の電流通路形成用導体
５　相互接続導体
６　絶縁性接合材
７　半導体基板
８　支持板
９～１２　外部リード
１３　被覆体
１４　ホール素子
１５　金属細線
１６　第１の中間部
１７　第１の端子部
１８　第２の端子部
１９　第２の中間部
２０　第３の端子部
２１　第４の端子部
２２　第１の溝
２３　第２の溝
２４　第１の主面
２５　第２の主面

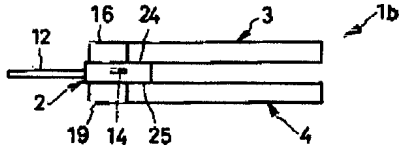
【図１】



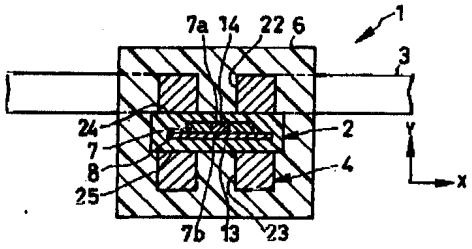
【図２】



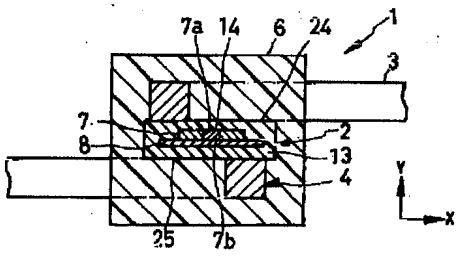
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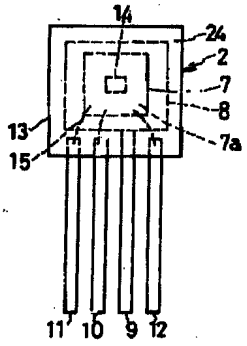
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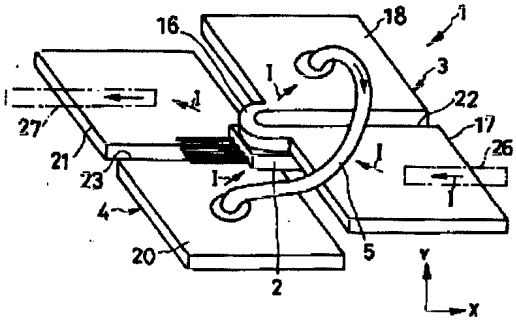
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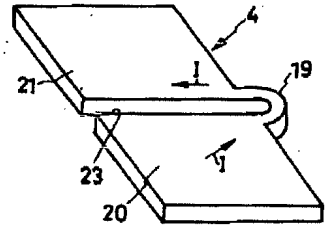
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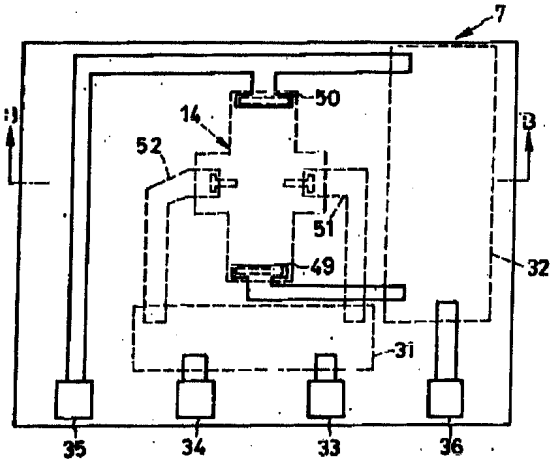
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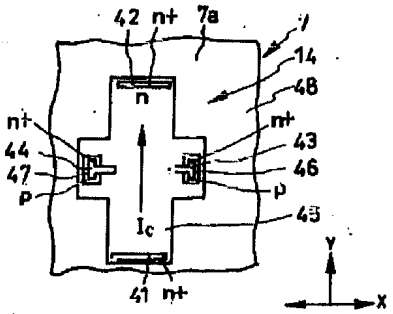
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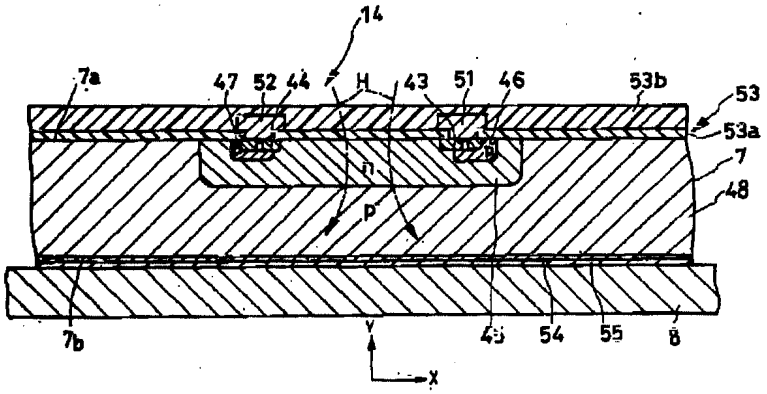
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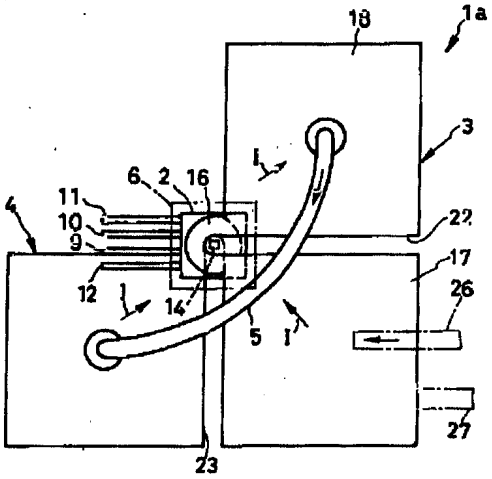
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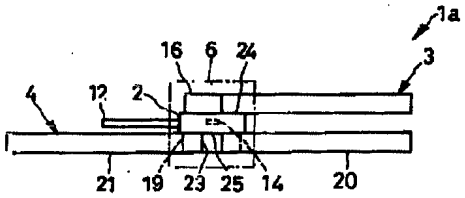
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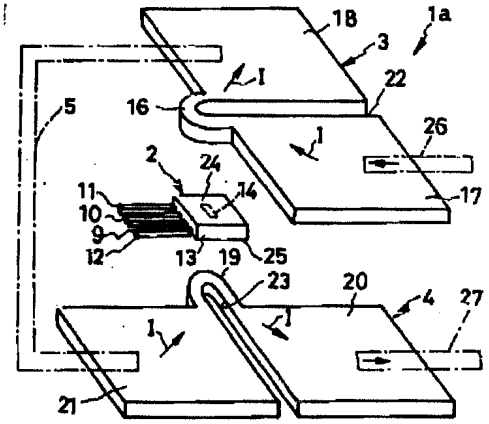
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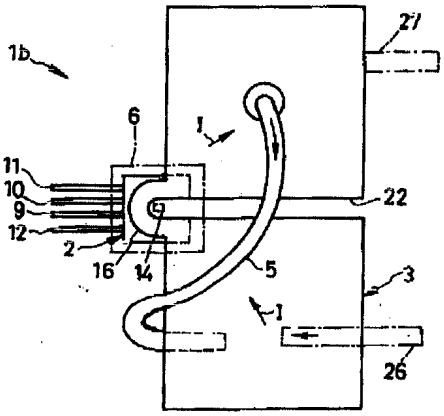
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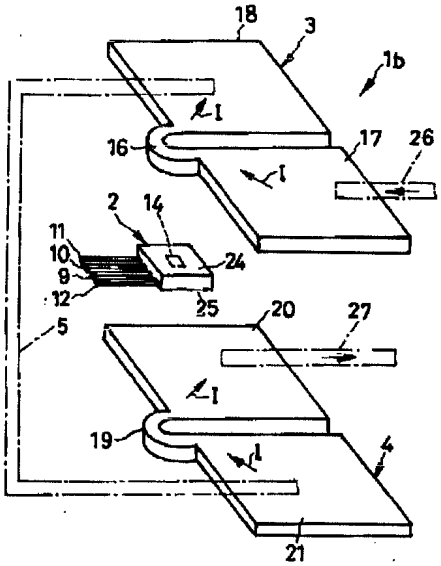
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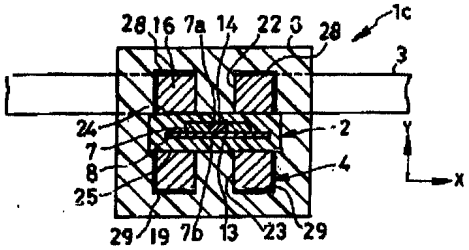
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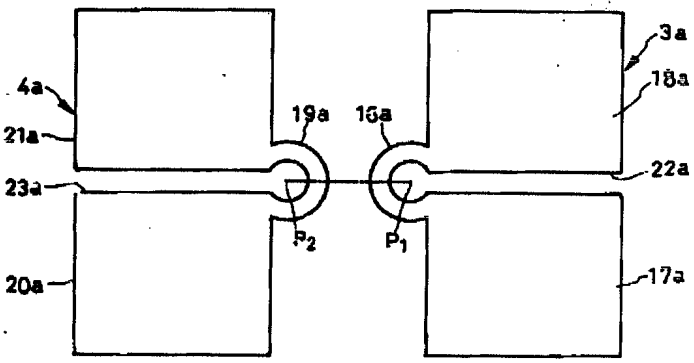
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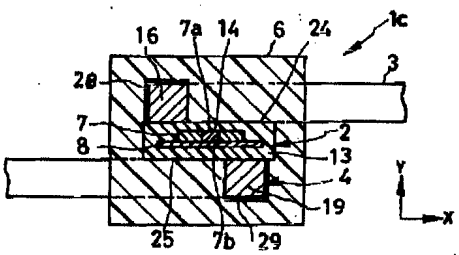
【図１８】



【図17】



【図19】



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2G025 AA00 AA05 AB02